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ILLINOIS PURE-FOOD LAW CONSTRUED.

HELD BY THE COURTS TO PROHIBIT THE SALE OF FOOD PRESERVATIVES CONTAINING BORIC ACID.

The Illinois pure food and drugs act prohibits the sale of food containing "any added poisonous or other added deleterious ingredient which may render such article injurious to health," and declares boric acid to be unwholesome and injurious. Another section of the same law prohibits the sale of any unwholesome or injurious preservative intended for use in foods.

A dealer was convicted of selling a preservative for canned fruit and vegetables which contained boric acid. He contended that the article sold was not a food, and it was not proved that it was unwholesome or injurious; but the State court held that the law was broad enough to prohibit the sale of any preservative for food which contained boric acid, and the Supreme Court of the United States adopted the view of the State court.

The opinion of the United States Supreme Court is published in this issue of the Public Health Reports, page 79.

THE PRACTICING PHYSICIAN.

WHAT HE SHOULD KNOW ABOUT THE REGISTRATION OF BIRTHS AND DEATHS AND THE REPORTING OF SICKNESS.

By JOHN W. TRASK, Assistant Surgeon General, United States Public Health Service.

The practicing physician occupies in the community a position of special responsibility. The sick unreservedly trust to him for the attention which may mean life or death to them. He is present when children are born, administering to both the mother and the child. He is aware of the toll being constantly paid to the grim reaper. Of the deaths of those who have lived the full span of years, of parents who can ill be spared, and of youths and maidens whose lives have just begun—of these he knows, for if not present at the hour of death it is because he is on his way to the bedside or has but recently left. The physician is the first to know when pestilence is abroad in the

community, when infantile paralysis is loose and maiming children. He knows where typhoid is laying its burden of protracted illness and invalidism, where malaria is chronically poisoning both the old and young, where tuberculosis is replacing health and vigor with sickness, misery, and death. He knows these things because in the community he alone is brought into contact with the sick by the very nature of his vocation.

Whenever a State has evolved beyond the primitive simplicity of the pioneer stage the people have recognized the special responsibilities pertaining to the practice of medicine and have attempted by statute to limit practice to those possessing certain qualifications. They have also imposed upon physicians duties which physicians alone can fulfill and which are necessary to the social life of the community and the common welfare. Among these duties is that of furnishing for official record certain information regarding births and deaths occurring in their practice. And whenever a community reaches in its development the stage where it desires to control the preventable diseases, physicians are required to report the occurrence of cases of these diseases among their patients.

For these reasons every practicing physician should know the purposes of the registration of births and deaths and the notification of the occurrence of preventable diseases, and the uses made of the records. He should also know thoroughly the legal requirements of his community in regard to these matters.

Registration of Births.

The establishment of community records, such as those resulting from the registration of births, is one of the first evidences that a community expects to have some degree of permanency and that the inhabitants do not consider themselves as temporary residents. This was as true of the Greek and Roman civilizations as of our own. The necessity for the registration of births is felt in many of the activities of the modern State or city. The uses of registration are legal and social. It also may serve an important function in public health administration.

Legal and social uses.—The registration of a child's birth forms a legal record that is frequently useful and may be of the greatest importance. It establishes the date of birth and the child's parentage. It may be required to establish the child's age for attendance at public schools, or for permission to work in States where restrictions are placed upon child labor; to show in courts of law whether a girl has reached the age of consent, or whether individuals have attained the age when they may marry without the parent's permission; to establish age in connection with the granting of pensions, military and jury duty, and voting. It may be important in connection with the bequeathing and

inheritance of property or to furnish acceptable evidence of genealogy, and in fact may be important and useful in possible events too numerous to mention.

A duty to the child.—It is needless to say that the average American community, composed of American fathers and mothers, may properly be expected to be more zealous in the care of its babies and their welfare than in that of its cattle, horses, and dogs, even though the animals be of pedigreed stock. It is the custom to register the births of blooded animals, that their parentage may be authenticated by carefully preserved records, and not a mere matter of neighborhood memory or hearsay. There are many more reasons why a baby's parentage and rights should be safeguarded and protected by an official registration of its birth than there are for recording the birth and parentage of a colt or calf. Registration of its time and place of birth is a duty the community owes the child, its future citizen.

A duty to the mother.—It is important to a mother that a proper record that will be fully accepted and unquestioned in courts of law shall be made of her child's birth and parentage. This may be necessary to settle questions of legitimacy and to determine the legal heirs to property.

An important duty of the attending physician or midwife.—The official registration of its birth, showing parentage and when and where born, is the right of every child. The newborn babe being helpless in the matter, most communities have placed the duty and responsibility of the registration of the birth upon the attending physician or midwife. Under the circumstances no physician or midwife has performed his whole duty to either of his patients, the child or the mother, until a properly completed birth certificate has been registered. In fact, so great may be the importance to the child in after years of having its birth registered that a physician who neglects his patient's interests to such a degree as to fail to register a birth might in all justice be considered an improper person to hold a license to practice medicine. Very probably, as parents grow to appreciate the importance of the registration of their children's births, the failure of the attending physician or midwife to register the required certificates may become a not uncommon cause of suits at law for damages.

Necessary to an orderly and progressive community.—Without official birth records the rights of the individual will be frequently jeopardized, legal procedure will often be unnecessarily complicated, child labor laws and school attendance will be impossible of enforcement, there will be difficulty in determining whether those desiring to cast the ballot have reached the voting age, and other difficulties too numerous to mention will arise. Then, too, birth records show the

additions made to the population by natural increase, and the elements of the population supplying this increase.

Uses in public health administration.—Registration of births shows where the babies are and makes possible such observance and protection as the health department desires to extend. With birth registration it is possible for the health authorities to see that the babies and their mothers have proper care and attention.

Nature of information secured by registration of births.—The information required to be registered concerning each child born usually includes certain facts relating to the child and the circumstances of its birth, together with certain items concerning the parents. The essential facts are the name of the child, its sex, and the date and place of birth, and the names and residence of the parents. There are many other items of information concerning births which are of great value and serve various purposes, such as the age, color, nativity, and occupation of the parents, and whether the child is a single birth, a twin, or a triplet. These facts are usually required to be stated.

The items registered serve two principal purposes. They serve, first, to identify the child and to establish its age and parentage, and, second, to furnish statistical data, which when compiled and analyzed give useful information regarding the rate at which the population is reproducing itself and the relative rates of increase of the various elements of the population.

Manner of registration.—In birth registration those upon whom the completeness of registration and the accuracy of birth records depend are for the most part, the attending physicians, sometimes midwives, and occasionally, in the absence of both of these, the parents.

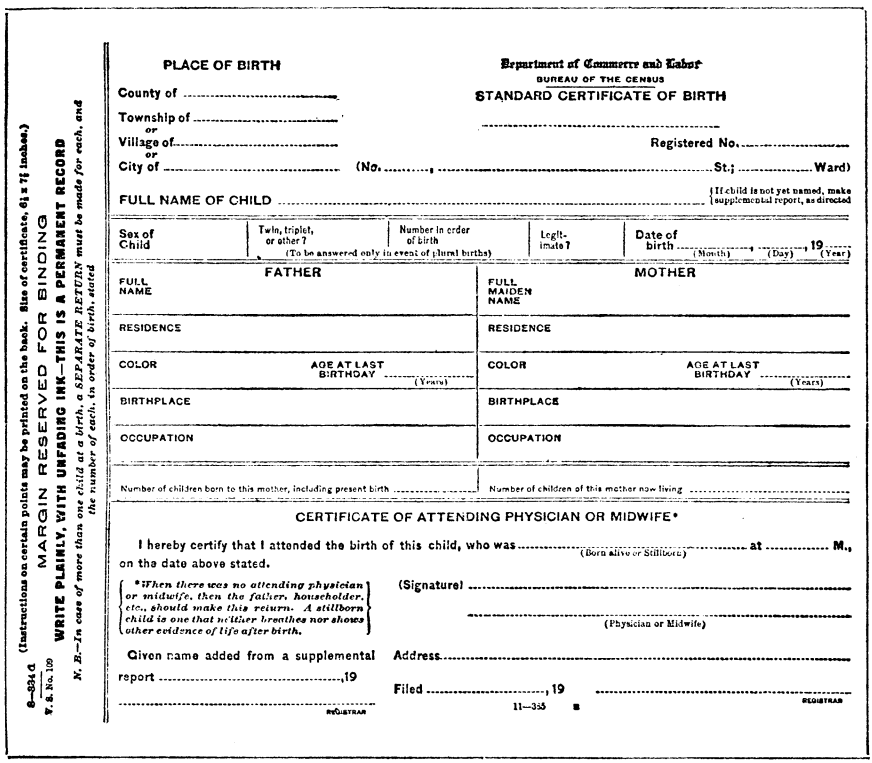
Births are usually required to be registered with an official appointed for the purpose and known as a registrar. Customarily it is the same official with whom deaths are registered. The certificate is usually required to be registered within a specified time after the birth of the child, and the physician has not completed his task nor fulfilled his obligations to the child and its mother until an accurately filled out certificate has been filed with the registrar. The failure to file such a certificate is a neglect of the interests of both the child and the mother.

Standard birth certificate for United States.—The standard form of birth certificate approved by the Bureau of the Census and recommended for use in the United States is shown on page 51.

Frequently the child is not named until some time after birth, so that it is impossible to insert in the certificate the full name of the infant. To meet this difficulty the Bureau of the Census recom-

mends the use of a "supplemental report of birth" which is to be filled in after the child has been named and filed with the registrar, who attaches it to the original certificate. (See below.)

United States Standard Certificate of Birth.



(Instructions on certain points may be printed on the back. Size of certificate, 6½ x 7¾ inches.)
8—834 d.
V. S. No. 109
MARGIN RESERVED FOR BINDING
WRITE PLAINLY, WITH UNFADING INK—THIS IS A PERMANENT RECORD
N. B.—In case of more than one child at a birth, a SEPARATE RETURN must be made for each, and the number of each, in order of birth, stated

PLACE OF BIRTH

County of .....

Township of .....
or
Village of .....
or
City of .....

Department of Commerce and Labor
BUREAU OF THE CENSUS
STANDARD CERTIFICATE OF BIRTH

Registered No. .....

(No. .....; ..... St.; ..... Ward)

FULL NAME OF CHILD ..... (If child is not yet named, make supplemental report, as directed)

Sex of Child	Twin, triplet, or other? (To be answered only in event of plural births)	Number in order of birth	Legitimate?	Date of birth ..... (Month) ..... (Day) ....., 19 (Year)

FATHER	MOTHER
FULL NAME	FULL MAIDEN NAME
RESIDENCE	RESIDENCE
COLOR — AGE AT LAST BIRTHDAY ..... (Years)	COLOR — AGE AT LAST BIRTHDAY ..... (Years)
BIRTHPLACE	BIRTHPLACE
OCCUPATION	OCCUPATION

Number of children born to this mother, including present birth ..... Number of children of this mother now living .....

CERTIFICATE OF ATTENDING PHYSICIAN OR MIDWIFE*

I hereby certify that I attended the birth of this child, who was ..... (Born alive or Stillborn) at ..... M., on the date above stated.

**When there was no attending physician or midwife, then the father, householder, etc., should make this return. A stillborn child is one that neither breathes nor shows other evidence of life after birth.*

(Signature) .....

..... (Physician or Midwife)

Given name added from a supplemental report .....,19

Address .....

Filed .....,19 .....

REGISTRAR

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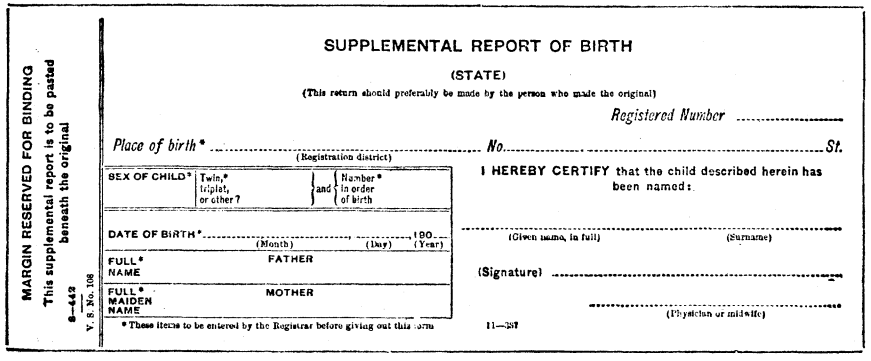
REGISTRAR



MARGIN RESERVED FOR BINDING
This supplemental report is to be pasted beneath the original
8—442
V. S. No. 108

SUPPLEMENTAL REPORT OF BIRTH

(STATE)

(This return should preferably be made by the person who made the original)

Registered Number .....

*Place of birth** ..... (Registration district) *No.* ..... *St.*

SEX OF CHILD*	Twin,* triplet, or other?	and	Number* in order of birth

DATE OF BIRTH* ..... (Month) ..... (Day) ....., 190... (Year)

FULL* NAME — FATHER

FULL* MAIDEN NAME — MOTHER

* These items to be entered by the Registrar before giving out this form

I HEREBY CERTIFY that the child described herein has been named:

..... (Given name, in full) ..... (Surname)

(Signature) .....

..... (Physician or midwife)

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Birth rates.—By the birth rate is meant the frequency with which births occur. There are several ways in which the birth rate of a community may be expressed, and each method of statement gives information not given by the others. The birth rate, however, is usually expressed as the number of births occurring during a year for each 1,000 of the population. This is known as the crude birth rate. The crude birth rate shows the net result to the community of the several factors governing reproduction—the number of women of child-bearing age, the number of those who are married, the frequency of illegitimacy, etc. In conjunction with the crude death rate it shows the rate at which the community is reproducing itself by natural increase. The birth rate is sometimes expressed as the number of births during a year for each 1,000 women of child-bearing age and at times as the number of legitimate births for each 1,000 married women of child-bearing age.

Registration area for births.—The director of the Census has established a tentative registration area for births for the calendar year 1915. The States which will be in this area are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, Michigan, Minnesota, and the District of Columbia. The births registered in these States will be compiled and tabulated by the Bureau of the Census and the results published as is now done by the bureau with deaths in the registration area for deaths. In the past there has been no recognized registration area for births in the United States, and annual birth statistics have therefore not heretofore been published by the Bureau of the Census. The States included in the tentative area represent approximately 31 per cent of the total population of the country, and are supposed to be the ones in which birth registration is the most satisfactory, although it is recognized that registration is probably not complete in any of those included.

Registration of Deaths.

Official knowledge of every death and its cause is necessary in the interest of law, order, and personal safety. Crime is likely to be more common where no official cognizance is taken of the disposal of bodies. For this reason the need for the official registration of deaths is felt by a community and enforced at an earlier stage in its development than is the registration of births.

Legal and social uses.—Death registration serves a number of highly important purposes. Its functions are legal and social. Death registration is not only useful in preventing and detecting crime through the restrictions placed upon the disposal of dead bodies, but it serves also as evidence in the inheritance of property and in the settlement of life insurance contracts and policies. It is

only proper that the time, place, and cause of death of each individual should be made a permanent record for both sentimental and legal reasons.

Through the study of the resulting records, death registration makes it possible to show by mathematical computations and statistical methods the extent and rate of change in population produced by deaths; the average duration of life; and, to the extent that the certified causes of death have been correctly stated, the relative frequency with which the several causes produce death. Death statistics by comparison with birth statistics give useful information regarding population increase or decrease.

Public health uses.—The registration of deaths has also performed a distinct service in public health administration. In the absence of definite information of the prevalence of the preventable diseases, available where cases of these diseases are required to be reported, records of deaths have furnished an index whereby their prevalence might be estimated. Under these circumstances mortality records have been an important factor in bringing communities to a realization of the need for measures to control such diseases.

The right of the decedent's family.—In the interests of the decedent's family it is highly desirable that official record be made of a death. This is especially true in connection with the settlement of life insurance contracts and the inheritance of property.

Manner of registration.—In registering a death a blank or form, known as a "death certificate," is filled out and filed with an official usually known as a registrar. Responsibility for the registration of deaths is sometimes imposed upon the family of the decedent, occasionally upon the physician last in attendance. The Model State Law for the registration of births and deaths, indorsed by both the American Medical Association and the Southern Medical Association, places the responsibility of seeing that a certificate is properly made out and filed with the registrar primarily upon the undertaker in the following words:

SEC. 9. That the undertaker, or person acting as undertaker, shall file the certificate of death with the local registrar of the district in which the death occurred and obtain a burial or removal permit prior to any disposition of the body. He shall obtain the required personal and statistical particulars from the person best qualified to supply them, over the signature and address of his informant. He shall then present the certificate to the attending physician, if any, or to the health officer or coroner, as directed by the local registrar, for the medical certificate of the cause of death and other particulars necessary to complete the record, as specified in sections 7 and 8. And he shall then state the facts required relative to the date and place of burial or removal, over his signature and with his address, and present the completed certificate to the local registrar in order to obtain a permit for burial, removal, or other disposition of the body. The undertaker shall deliver the burial permit to the person in charge of the place of burial, before interring or otherwise disposing of the body; or shall attach the removal permit to the box containing the corpse, when shipped by any transportation

company; said permit to accompany the corpse to its destination, where, if within the State of ....., it shall be delivered to the person in charge of the place of burial.

Nature of information secured by registration of deaths.—The essential data recorded on death certificates are the name, sex, color, age, conjugal condition, occupation, and nativity of the decedent, and the time, place, and cause of death. The standard certificate of death recommended by the Bureau of the Census calls for the following information:

Place of death.

Name, sex, color, race, conjugal condition, age, date of birth, occupation, and birthplace of decedent, name and birthplace of father, maiden name and birthplace of mother.

Signature and address of informant giving preceding information.

Date and time of death, a statement as to the duration of medical attendance on the decedent, the cause of death, and the duration of the last illness, are to be given by the physician, if any, last in attendance.

When the decedent was a recent resident or died in a hospital or other institution, the length of residence at place of death is to be given and also the former or usual residence and the place where the disease or injury was contracted.

The date and intended place of burial and the address of the undertaker are to be given by the undertaker over his signature.

The date when the certificate is filed is inserted by the registrar with his signature.

Death rates.—The records of deaths in a community show, among other things, the number of persons dying. In comparing the deaths in different years or of separate communities it is necessary to express the frequency of deaths in terms of a unit of population during a specified time, for different cities will have different numbers of inhabitants and the population of a given city will change from year to year. The usual method of expressing the death rate is in terms of the number of deaths occurring during a year per 1,000 population. In ascertaining this rate the total deaths and the entire population enter into the computation. This rate is called the crude death rate.

Specific death rates.—It is often desired to know the death rates of special groups of the population, for example, of males or of females, or of persons over 40 years of age, or the death rate from one cause, as typhoid fever. These rates of special or limited groups of the population or of deaths from special causes are known as specific death rates. They are expressed in terms of the number of deaths occurring in the subgroup in a year per 1,000 (or 10,000, or 100,000, or 1,000,000) persons in the subgroup. If the rate is that of a specific cause or disease it is usually based upon the number of deaths from the disease per 1,000, or 100,000, or 1,000,000 population.

Among the most important of the specific rates are those relating to age groups. Their significance is shown by the following statement of death rates for the various age groups in the registration States during the year 1911 taken from the reports of the Bureau of the Census:

Age group.	Death rate per 1,000.	Age group.	Death rate per 1,000.
Under 1 year	112.9	35 to 44 years	8.9
1 to 4 years	11.8	45 to 54 years	13.6
5 to 9 years	3.1	55 to 64 years	26.2
10 to 14 years	2.2	65 to 74 years	55.2
15 to 19 years	3.6	75 years and over	138.9
20 to 24 years	5.2	All ages	15.9
25 to 34 years	6.4		

Specific rates by color are also important. In the registration area for deaths in 1913 the death rate for the white population was 13.7 and that of the colored 21.9 per 1,000, while the rate of the two groups taken together was 14.1 per 1,000.

The death rate differs also in the two sexes. In the registration area for deaths in 1911 (the last year for which figures are available) the death rate for males was 14.7 and for females 13 per 1,000.

Reporting of Sickness.

In the complex life of modern civilization the individual can not protect himself from disease. The danger to him of infection from the sick and diseased whom he does not see, and of whose existence he is himself unaware, may be greater than the danger from the sick among those immediately about him. One can protect himself from infection from the sick of whom he knows, but is in large measure helpless to protect himself from the disease of the sick of whose existence he is in ignorance. For the latter one depends upon the health department.

The work of the health department is to control the controllable diseases, but it is impossible for any health department, be its statutory powers and available appropriations never so great, to effectively control any disease without first having information as to whether the disease is present in the community, and, if present, how prevalent and where and under what conditions cases are occurring. The mere appointment of a health officer, and the appropriation of money will not protect against disease. The control of disease is a work which requires definite information and knowledge of the occurrence of cases made use of by persons trained in epidemiology—that is, by persons having knowledge of the conditions which produce disease or cause its spread.

The community is helpless to control any disease in the absence of definite knowledge of the conditions under which cases are occurring, and a health department which does not know of the prevalence of disease within its jurisdiction is a health department in name only.

There are two main classes of controllable diseases at present recognized. These are communicable diseases and occupational diseases.

The communicable diseases.—The communicable diseases spread from individual to individual. Each case is a focus from which many persons may receive infection. Each focus is a potential epidemic. With but one or two exceptions every attempt at the control of communicable diseases other than by ascertaining the cases that occur, and the conditions under which they develop, has been a failure.

Occupational diseases.—Occupational diseases, of which lead poisoning and miners' phthisis are examples, are due to industrial environment and can be prevented only by ascertaining where conditions exist which are capable of producing them in workmen. Each case of an occupational disease shows where conditions of this kind exist, for the fact that a case has developed is conclusive evidence of the presence of conditions capable of producing the disease. To find where conditions exist which will produce these diseases it is, therefore, necessary to know of each case that occurs, and the time, place, and conditions under which it occurs.

Nature of information secured from reports of sickness (morbidity reports).—It is the practice for health departments to furnish to physicians notification blanks upon which the reports are to be made. In some instances these are in the form of post cards, which have proper spaces indicated for notation of the required information. The information to be given varies somewhat in the several States, but usually provides for a statement of the name, age, sex, and address of the patient, so that the health officer can locate and identify the case, the nature of the disease, the date, and the signature of the reporting physician.

The standard notification blank adopted by the Conference of State and Territorial Health Authorities with the Public Health Service of the United States is shown on the opposite page.

Standard notification blank.

....., 191 (Date.)
Disease or suspected disease.....
Time of onset of disease.....
Patient's name....., age....., sex....., race.....
Patient's address....., occupation.....
School attended or place of employment.....
Number in household: Adults....., children.....
Probable source of infection or origin of disease.....
If the disease is smallpox, type....., number of times successfully vaccinated and approximate dates.....
If typhoid fever, scarlet fever, diphtheria, or septic sore throat, was patient, or is any member of household, engaged in the production or handling of milk.....
Address of reporting physician.....
Signature of physician.....

It will be noted that the blank calls for the following data:

1. Date.
2. Name of disease or suspected disease.
3. Time of onset of disease.
4. Patient's name, age, sex, race, and address. (This is largely for purposes of identification and location.)
5. Patient's occupation. (This serves to show both the possible origin of the disease and the probability that others have been or may be exposed.)
6. School attended by or place of employment of patient. (Serves same purpose as the preceding.)
7. Number of persons in the household, number of adults and number of children. (To indicate the nature of the household and the probable danger of the spread of the disease.)
8. The physician's opinion of the probable source of infection or origin of the disease. (This gives important information and frequently reveals unreported cases. It is of particular value in occupational diseases.)
9. If the disease is smallpox, the type (whether the mild or virulent strain) and the number of times the patient has been successfully vaccinated, and the approximate dates. (This gives the vaccination status and history.)
10. If the disease is typhoid fever, scarlet fever, diphtheria, or septic sore throat, whether the patient had been or whether any member of the household is engaged in the production or handling of milk. (These diseases being frequently spread through milk, this information is important to indicate measures to prevent further spread.)
11. Address and signature of the physician making the report.

According to the Model State Law for reports of sickness these reports are to be mailed immediately to the local health department, so that proper measures can be taken to prevent the spread of the disease or to find the focus or source from which the case originated, that the occurrence of additional cases may be prevented. Sometimes attending physicians are required to report also when patients recover or the case terminates fatally.

Manner of notification.—The responsibility for reporting the occurrence of disease is placed primarily upon the physician, inasmuch as he is not only the only one who comes in contact with a large proportion of the sick, but is also the only one able in many instances to make a proper diagnosis. The health department furnishes forms for the purpose. Usually as soon as a case of a reportable disease is recognized the report is to be made out and mailed or sent by messenger to the health department. In cities where the telephone is available it would be better to notify the health department by telephone in cases of the more dangerous communicable diseases and let the regular report follow by mail. When they arrive at the health department the reports go to the individual or division which has charge of the control of diseases.

Summary of the uses of morbidity reports.—The part played in public health administration by the reports of cases of sickness made by practicing physicians may be briefly summarized as follows:

1. In the communicable diseases, morbidity reports show the occurrence of cases which constitute foci from which the disease may spread to others, as in scarlet fever, typhoid fever, tuberculosis, or yellow fever, and make it possible to find the previously unrecognized cases and to take proper precautions to protect the family of the patient, his associates, or the community at large.

2. In some diseases morbidity reports make it possible to see that the sick receive proper treatment, as in ophthalmia neonatorum, diphtheria, and, in certain cities, tuberculosis. The reporting of cases of ophthalmia in the newborn makes it possible to save the sight of some infants who would otherwise not receive adequate treatment until after much damage had been done. In diphtheria the health department can be of service in furnishing antitoxin. Some cities furnish hospital or other relief to consumptives who would otherwise be without proper treatment.

3. In diseases that are not communicable, such as those due to occupation or environment, reported cases show the location or conditions which are causing illness or injury. This makes it possible to remedy the faulty conditions, so that others may not be similarly injured.

4. In certain diseases, of which the cause or means of spread is unknown, morbidity reports show their geographic distribution and varying prevalence and the conditions under which cases occur. This information has great potential value in attempts to ascertain their causes and means of spread.

5. Reports of the occurrence of disease are necessary to show the need of certain sanitary measures or works and to control and check the efficiency of such measures or works when put into operation. In pulmonary tuberculosis such reports show the number of consump-

tives in the community and the need of sanatoria. In malaria they show the prevalence of the disease, the need for drainage and other antimosquito work, the efficiency of such work when in operation, and when a change in the prophylactic measures is needed, or additional ones are necessary. In typhoid fever they show faults in the water supply or in the control of the production and distribution of milk, or in the disposal of excreta in special localities.

6. Morbidity reports when recorded over a period of time and properly compiled become a record of the past occurrence of disease. They show the relative prevalence of disease from year to year and under varying conditions. They show the effect of the introduction of public-health measures and of sanitary works. They give a history of disease not obtainable in their absence.

Conclusion.

The practicing physician has responsibilities in regard to the registration of births and deaths, and the reporting of cases of the notifiable diseases which he alone can perform. If he fails to register a birth he is neglecting the welfare of his patients, the child, and its mother. If he fails to give accurately the data called for in the medical part of a death certificate he is neglecting the welfare of the community. If he fails to report promptly his cases of the notifiable diseases he is obstructing the work of the health department and making difficult the control of disease and the protection of the health and lives of his fellow citizens.

MILK-BORNE TYPHOID FEVER.

REPORT OF AN OUTBREAK AT GALLUP, N. MEX.

By F. C. SMITH, Surgeon, United States Public Health Service.

The investigation, of which this is a report, was made in compliance with a request to the Surgeon General, United States Public Health Service, from the mayor and health officer of Gallup, October 15, 1915.

Character of the Outbreak.

About 80 cases of sickness occurred in the town of Gallup between September 18 and October 12, 1915, which were diagnosed by some of the local physicians as typhoid fever, but by others as "mountain fever" and "bilious mountain fever," by which it appears was meant a disease similar to but quite distinct from typhoid fever. The epidemic was characterized by the presence of many mild and abortive cases. Constipation was the rule. There was apparently no prevailing gastro-enteritis, which so commonly precedes or accompanies an outbreak of typhoid. The initial symptoms were often those of influenza. The fever sometimes reached normal at the end of two